

Data Studio

1:00–2:30pm, Wednesday, 14 October 2020

Videoconference:

<https://stanford.zoom.us/j/98567770260?pwd=Q1A4MEJVeVZXZTF1RjhGSHVNR2FNQT09>

Password: 489313

Investigator: John S. Tamaresis Biomedical Data Science

Title: A Prediction Model for Unplanned Care Events

Summary:

The Data Studio Workshop brings together a biomedical investigator with a group of experts for an in-depth session to solicit advice about statistical and study design issues that arise while planning or conducting a research project. This week, the investigator(s) will discuss the following project with the group.

The Center for Medicare and Medicaid Services (CMS) has recently focused on unplanned care events in cancer patients as a measure of both the quality of care delivered and a source of potential cost savings. These events have appeared in a pay-for-reporting program that contains a metric, OP-35, which measures the rate of hospital admissions and emergency department visits in patients receiving outpatient chemotherapy. These chemotherapy-related events are felt to be potentially avoidable with appropriate access, outreach, and preventative measures.

For practices with very large patient populations such as academic medical centers, generic interventions to address unplanned care can quickly overwhelm available resources. Focused interventions on higher risk patients present an opportunity to decrease the rate of unplanned care events in patients receiving outpatient chemotherapy. Leveraging the data available in the electronic medical record to identify patients may allow for alerts to be seamlessly pushed to frontline caregivers and give them the opportunity to reach out and provide high-touch care to those in greatest need.

We are developing a predictive model for identifying patients at risk for chemotherapy-related unplanned care events during outpatient treatment as defined by the CMS OP-35 metric. This effort encompasses many aspects of data science, some of which are the following: how to clean multiple datasets each with a different structure, how to combine multiple datasets, how should the data be structured for a predictive model, how to handle missing values among the covariates, how to define the response variable, how to deal with dependencies among the covariates, how should the covariates be represented in the model, how to choose a predictive model, should the data be split into construction-validation-test sets, and how should the predictive value of the model be measured.

Questions:

Our questions concern specific issues that arise in building a predictive model: missing data, variable selection, model specification, and model validation.

Zoom Meeting Information

Join from PC, Mac, Linux, iOS or Android:

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Or iPhone one-tap (US Toll):

+18333021536,,98567770260# or

+16507249799,,98567770260#

Or Telephone:

Dial: +1 650 724 9799 (US, Canada, Caribbean Toll) or

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For more information about Data Studio:

<http://med.stanford.edu/dbds/resources/data-studio.html>